

10/524827

DT05 Rec'd PCT/PTO 18 FEB 2005

Docket No.: 13173-00006-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Matt Sauer et al.

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: PROCESS FOR PREPARING
KETOCAROTENOIDS IN GENETICALLY
MODIFIED ORGANISMS

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR 1.97, Applicant(s) hereby make of record the following documents. A PTO Form SB/08 and a full copy of each of the documents required under 37 CFR 1.98(a)(2) accompany this statement.

Of the documents listed on the attached SB/08 are the documents cited in an International Search Report during the prosecution of international application no. PCT/EP03/09109, which corresponds to the above referenced application, and in accordance with 37 CFR 1.97(b)(2), hereby submit(s) these documents for the Examiner's consideration. A copy of the International Search Report and of each document required under 37 CFR 1.98(a)(2) are enclosed as well.

This statement is not to be interpreted as a representation that the cited documents are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any document herein be construed *per se* as a representation that such document is prior art. Moreover, Applicant(s) understand(s) the Examiner will make an independent evaluation of the cited documents.

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Applicant believes no fee is due with this Information Disclosure Statement. However, if a fee is due please charge our Deposit Account No. 03-2775, under Order No. 13173-00006-US from which the undersigned is authorized to draw.

Dated: February 17, 2005

Respectfully submitted,

By 
Roberte M. D. Makowski

Registration No.: 55,421
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P.O. Box 2207
Wilmington, Delaware 19899
(302) 658-9141
(302) 658-5614 (Fax)
Attorney for Applicant

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PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	Not Yet Assigned
				Filing Date	Concurrently Herewith
				First Named Inventor	Matt Sauer
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	BA	EP-0 735 137-A1	10-02-1996	Misawa, et al.		✓
	BB	WO-0120011-A1	03-22-2001	Höglund, et al.		✓
	BC	WO-9818910	05-07-1998	Mann, et al.		✓
	BD	WO-9907867	02-18-1999	Shewmaker		✓
	BE	WO-9961652	12-02-1999	Cunningham		✓

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Kaneko T. et al. "beta-carotene ketolase [Nostoc sp. PCC 7120]" <i>Database NCBI</i> Accession No. BAB74888, 10/22/04	
	CB	Kaneko T. et al. "Beta-carotene ketolase" <i>Database Uniprot 'Online!'</i> Accession No. Q8YSA0, 03/01/02, XP-002275240	
	CC	Kaneko T. et al. "Nostoc sp. PCC 7120 DNA, complete genome, section 12/19." <i>Database EM PRO 'Online!'</i> Accession No. AP003592, 11/28/01, XP-002275241	
	CD	Misawa N. et al. "Paracoccus sp. MBIC1143 crtW, crtZ, crtY, crtI, crtB genes, complete cds." <i>Database NCBI</i> Accession No. D58420, 08/28/02	
	CE	Misawa N. et al. "Alcaligenes sp. crtW and crtZ genes for beta-carotene hydroxylase and beta-Carotene ketolase, complete cds." <i>Database NCBI</i> Accession No. D58422, 02/01/03	
	CF	Lotan T. "Cloning and expression in <i>Escherichia coli</i> of the gene encoding β -C-4-oxygenase, that converts β -carotene to the ketocarotenoid canthaxanthin in <i>Haematococcus pluvialis</i> " <i>FEBS Letters</i> 364 (1995), pp. 125-128	
	CG	Harker M. et al. "H. pluvialis mRNA for beta-carotene C-4 oxygenase" <i>Database NCBI</i> Accession No. X86782, 09/09/04	
	CH	Kajiwarra S. et al. "Haematococcus pluvialis mRNA for beta-carotene ketolase, complete cds." <i>Database NCBI</i> Accession No. D45881, 02/01/99	
	CI	Harker M. et al. "Paracoccus marcusii crtW, crtZ, crtY, crtI, crtB & crtE genes." <i>Database NCBI</i> Accession No. Y15112, 09/15/99	
	CJ	Kaneko T. et al. "b-carotene ketolase [Synechocystis sp. PCC 6803]." <i>Database NCBI</i> Accession No. NP_442491, 11/09/04	
	CK	Hannibal L. et al. "Bradyrhizobium sp. ORS278 geranylgeranyl synthase (crtE), lycopene cyclase (crtY), phytoene desaturase (crtI), phytoene synthase (crtB), and beta-carotene ketolase (crtW) genes, complete cds." <i>Database NCBI</i> Accession No. AF218415, 06/22/00	

Examiner Signature	Date Considered
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				First Named Inventor	Matt Sauer
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	13173-00006-US

CL	Kaneko T. et al. "Complete genomic sequence of the filamentous nitrogen-fixing cyanobacterium <i>Anabaena</i> sp. strain PCC 7120" <i>DNA Research</i> 8, (2001) pp. 205-213	
CM	Kaneko T. et al. "Nostoc sp. PCC 7120 DNA, complete genome, section 12/19" <i>Database NCBI</i> Accession No. AP003592, 11/28/01	
CN	Kajiwaru S. et al. "Isolation and functional identification of a novel cDNA for astaxanthin biosynthesis from <i>Haematococcus pluvialis</i> , and astaxanthin synthesis in <i>Escherichia coli</i> " <i>Plant Molecular Biology</i> 29, (1995), pp. 343-352	
CO	Harker M. et al. "Biosynthesis of ketocarotenoids in transgenic cyanobacteria expressing the algal gene for β -C-4-oxygenase, <i>crtO</i> " <i>FEBS Letters</i> 404, (1997), pp. 129-134	
CP	Albrecht M. et al. "Expression of a ketolase gene mediates the synthesis of canthaxanthin in <i>Synechococcus</i> leading to tolerance against photoinhibition, pigment degradation and UV-B sensitivity of photosynthesis" <i>Photochemistry and Photobiology</i> , 73(5), (2001), pp. 551-555	
CQ	Mann V. et al. "Metabolic engineering of astaxanthin production in tobacco flowers" <i>Nature Biotechnology</i> , Vol. 18, (August 2000), pp. 888-892	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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